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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/355,635	08/02/1999	PAUL JAMES CONROY	72005-7	6737

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EXAMINER

MIGGINS, MICHAEL C

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 05/02/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/355,635

Applicant(s)

CONROY ET AL.

Examiner

Michael C. Miggins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-48 is/are pending in the application.
- 4a) Of the above claim(s) 20-29 and 42-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 20-48 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 42-48 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: applicant originally elected the method claims drawn to a method for protecting a surface from corrosion, claims 1-19, in paper #8, filed 12/11/01. Applicant has canceled original claims 1-19 and now added claims 30-41 drawn to a method for protecting a metal pipe and claims 42-48 drawn to a drinking water pipe in paper #11, filed 2/10/02. Since the method, claims 30-41, can be used to make chemical resistant floor tiles or concrete slabs for lining pits for hazardous waste disposal, claims 30-41 drawn to a method for protecting a metal pipe and claims 42-48 drawn to a drinking water pipe are distinct inventions. Moreover, newly added claims 30-41 correspond with original claims 1-19.
2. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 42-48 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.
3. Applicant's election of claims 1-19 in Paper No. 8 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Furthermore, claims 20-29 have been withdrawn from consideration. A complete reply to the final rejection must include cancelation of

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nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Response to Arguments

5. Applicant's arguments with respect to claims 1-19 and new claims 30-48 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 30-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al. (WO 95/11863) in view of Burkes et al. (U.S. Patent No. 5,531,824).

Claim 30 recites an intended use (i.e. ... useful in delivering drinking water from corrosion due to water passing therethrough ..., and ... for drinking water ...) and has been given little to no patentable weight since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does

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not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Allen et al. teach a method for protecting a metal pipe (abstract) comprising the steps of providing a metal pipe, depositing a cementitious composition on an inside surface of said metal pipe (page 2, lines 5-19), wherein the cement is a hydraulic cement (see page 3, lines 7-15, since Allen et al. teach a portland cement and portland cement is a hydraulic cement), wherein the hydraulic cement is calcium silicate cement (see page 3, lines 7-15, since Allen et al. teach a portland cement and portland cement contains calcium silicate), wherein the cementitious composition further comprises fibers as reinforcement (abstract, page 2, lines 5-19 and page 3, lines 16-30), wherein the cementitious further comprises water (page 4, lines 1-8), including a step of hardening said cementitious composition (page 5, lines 22-30) and wherein the cementitious material further comprises an aggregate material (page 3, lines 24-30) (applies to instant claims 30, 34-38 and 41).

Allen et al. teach applicant's invention substantially as claimed. However, Allen et al. fail to teach the cementitious composition comprises a cement and metakaolin, wherein part of the cement is replaced with a cement replacement material, wherein said replacement material is at least one of ground granulated blast furnace slag and pulverized fuel ash and the step of mixing the cementitious composition with sand.

Burkes et al. teach a cementitious composition which comprises a cement and metakaolin (column 2, lines 55-67), wherein part of the cement is replaced with a cement replacement material (see column 2, lines 55-67, since Burkes et al. teach

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finely-ground blast furnace slag), wherein said replacement material is at least one of ground granulated blast furnace slag and pulverized fuel ash (column 2, lines 55-67) and the step of mixing the cementitious composition with sand (column 2, line 55, since Burkes et al. teach freshly mixed mortar and mortar contains sand) (applies to instant claims 30-33 and 40) in a concrete lined pipe (column 4, lines 1-4) for the purpose of providing improved hardness and compressive strength and decreased permeability to liquids.

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a cementitious composition which comprises a cement and metakaolin, wherein part of the cement is replaced with a cement replacement material, wherein said replacement material is at least one of ground granulated blast furnace slag and pulverized fuel ash and the step of mixing the cementitious composition with sand in the method of Allen et al. in order to provide improved hardness and compressive strength and decreased permeability to liquids as taught or suggested by Burkes et al..

The combined teachings of Allen et al. and Burkes et al. disclose the claimed invention except for the amount of water recited in claim 39. However, Allen et al. teach that amount of shrinkage of the cement is dependant upon how much water is present in the mixture (see page 5, lines 13-21). Thus one of ordinary skill in the art would have recognized that the amount of water would be readily determined through routine experimentation depending on the desired end results absent some showing of unexpected results. Further, it would have been obvious to one having ordinary skill in

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the art at the time the invention was made to have provided water in the amount recited by applicant in claim 39 in order to control shrinkage, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges or an optimum value of a result effective variable involves only routine skill in the art (applies to instant claim 39). *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

The combined teachings of Allen et al. and Burkes et al. disclose the claimed invention except for the amount of metakaolin and the amount of cement replacement materials based on the dry weight recited in claims 30-32. However, Burkes et al. teach the addition of 10-46 weight percent of metakaolin and/or finely-ground blast furnace slag (a cement replacement material) to a cement mixture (column 2, lines 55-67). Thus one of ordinary skill in the art would have recognized that the amount of metakaolin and the amount of cement replacement materials based on the dry weight would be readily determined through routine experimentation depending on the desired end results absent some showing of unexpected results. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided the amount of metakaolin and the amount of cement replacement materials based on the dry weight recited in claims 30-32 in a cement mixture in order to provide improved hardness and compressive strength and decreased permeability to liquids, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges or an optimum value of a

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result effective variable involves only routine skill in the art (applies to instant claims 30-32). *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (703) 305-0915. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (703) 308-4251. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

MCM. *McH*
April 30, 2003

[Signature]
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

4/30/03